

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/001918

A. CLASSIFICATION OF SUBJECT MATTER

IPC: C07K-7/06 A61K-31/436 C07K-1/00 C07K-5/04 A61K-38/04 A61L-31/08 A61L-31/16 A61P-37/00 C07D-498/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: C07K A61K A61L A61P C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Delphion, Pubmed, Caplus, Registry (Structure search)

Keywords: rapamycin, derivative, conjugate, amino acid, peptide, carbamate, cell cycle.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X	US 5,411,967 A (AMERICAN HOME PRODUCTS CORPORATION, Madison, N.J.), 2 May, 1995. Whole Document.	1 to 6 and 14 to 18
A	EP 0509795 A2 (AMERICAN HOME PRODUCTS CORPORATION, New York, N.Y.) 21 October, 1992. Whole Document.	1 to 3 and 14 to 18
A	US 5,385,910 A (AMERICAN HOME PRODUCTS CORPORATION, Madison, N.J.), 31 January, 1995. Whole Document.	1 to 3 and 14 to 18

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"Z" document member of the same patent family

Date of the actual completion of the international search
07 February 2005 (07-02-2005)

Date of mailing of the international search report
14 March 2005 (14-03-2005)

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
A	WO 96/41807 A1 (SANDOZ-ERFINDUNGEN VERWALTUNGSGESELLSCHAFT MBH [AT/AT]), 27 December, 1996. Whole Document.	1 to 9 and 14 to 18
Y	WO 03/057218 A1 (NOVARTIS AG [CH/CH]), 17 July, 2003. Whole Document.	7 to 13
Y	US 6,585,764 B2 (CORDIS CORPORATION, Miami Lakes, FL (US)), 1 July, 2003. Whole Document.	10 to 13

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

7. ☒ Claim Nos. : 4 to 9, 15 and 16
because they relate to subject matter not required to be searched by this Authority, namely :
- Although claims 4 to 9, 15 and 16 are methods of treatment of the human/animal body which this Authority is not obliged to search under Rule 39.1(iv) of the PCT, the search has been carried out based on the alleged effects of the compounds defined in claim 1.
8. ☐ Claim Nos. :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :
9. ☐ Claims Nos. :
because they are dependant claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows :

10. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
11. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
12. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :
13. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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The structure of rapamycin seems to be erroneous in the application. The rapamycin ring system of the application comprises a superfluous carbon (located between the conjugated double bonds and a carbonyl group) compared to the rapamycin ring system found in the art. Since the crux of the invention resides in the substituents located at the 42 position of rapamycin and not in the ring system, the ring system of rapamycin commonly disclosed in the art was used as the basis for the search.

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Information on patent family members

International application No.
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